

## **AMENDMENTS TO THE CLAIMS:**

The following listing of claims replaces all prior versions of the claims:

1. (Currently Amended) A device suitable for effecting instant pain relief on pain-spasm-pain neurological reflex cycles that cause pain and functional disability in muscles suffering from acute and chronic soft tissue disorders, said device comprising maps for locating golgi tendons on muscles of the human body, a tensiometric instrument [[[8)]]] capable of measuring and transmitting pressure values and means for displaying the said values;

characterized in that the device further comprises:

a stimulator tip [[[1)]]], which is suitable for applying local pressure to golgi tendon receptors, and which is attached to said tensiometric instrument [[[8)]]];

an indication means [[[3)]]] suitable for enabling the patient to inform the device of actual golgi tendon pain pressure threshold upon feeling associated pain; and

a vibrator tip [[[2)]]] located within 25 mm of the stimulator tip and means [[[9)]]] for actuating said vibrator tip for applying vibration onto the treatment area.

2. (Currently Amended) A neuromuscular diagnosis and treatment device as set forth in Claim 1 wherein the device further comprises electronic input means [[[4)]]] for indicating to the system the identification of GT points under examination.

3. (Currently Amended) A neuromuscular diagnosis and treatment device as set ~~for~~ forth in Claim 2 wherein the device further comprises a memory medium [[[5)]]] on which GT points and GT inhibition pressure thresholds corresponding to GT pain pressure thresholds are stored.

4. (Currently Amended) A neuromuscular diagnosis and treatment device as set forth in Claim 3, wherein the device further comprises a processor [[10]] suitable for processing the input data, which includes at least the identification of a GT point and GT inhibition thresholds corresponding to GT pain pressure thresholds, [-and] and subsequently determining and displaying by means of a display [[6, 7]] the GT inhibition pressure threshold.

5. (Currently Amended) A neuromuscular diagnosis and treatment device as set forth in Claim 3 wherein the device comprises an electronic ~~interphase~~ interface which converts the data obtained from said tensiometric instrument [[8]] and the indication means [[3]] to a format known by the computer and which transmits the same to a computer [[4]].

6. (Currently Amended) A neuromuscular diagnosis and treatment device as set forth in Claim 5 wherein the device further comprises a memory medium [[5]] on which algometric maps of the human body are stored.

7. (Currently Amended) A neuromuscular diagnosis and treatment device as set forth in any one of claims 1 to 6 wherein said stimulator tip [[1]] has a spherical end of 6 to 16 mm in diameter.

8. (Previously Presented) A neuromuscular diagnosis and treatment device as set forth in any one of claims 1 to 6 wherein the device is used for applying mechanical pressure on golgi tendon receptors beneath the human skin.

9. (Currently Amended) A method of diagnosing and treating pain and functional disability in muscles suffering acute and chronic soft tissue disorders, comprising the steps of;

locating golgi tendons (GT) in muscles with PSP continuous reflex cycles by using a stimulator tip,

applying pressure to the GT points on the damaged muscles via a generally spherical vibrator tip [(1)] located within 25 mm of the stimulator tip attached to a tensiometric instrument,

measuring GT pain pressure threshold on the GT receptors whence the patient feels the pain associated with the applied pressure,

applying a gradually increasing pressure to the GT points until the pressure value reaches GT inhibition pressure threshold corresponding to measured GT pain pressure threshold by turning a vibrator on when the applied pressure in the treatment phase exceeds the GT pain pressure threshold.

10. (Currently Amended) A method of diagnosis and treatment according to Claim 9 wherein any of said pressure applying steps comprise measuring the pressure applied by said generally spherical stimulator tip [(1)], converting said pressure value in an electronic format and transmitting the same to a microprocessor [(10)] and optionally to a pressure monitor [(6, 7)] for displaying.

11. (Currently Amended) A method of diagnosis and treatment according to Claim 9 wherein the step of locating the GT points in a damaged muscle, comprises identifying and recording GT points, optionally in electronic format displayed on a monitor [(6,7)] showing damaged areas on an algometric map of the patient's body.

12. (Currently Amended) A method of diagnosis and treatment according to Claim 9 wherein the step of applying a gradually increasing pressure further comprises use of a data table stored in an electronic medium [(5)] comprising GT points and

predetermined GT inhibition pressure thresholds corresponding to a range of GT pain pressure thresholds in relation to each GT point.

13. (Currently Amended) A method of diagnosis and treatment according to Claim 12, wherein the step of applying a gradually increasing pressure further comprises processing the input data, which includes at least identification of a GT point and GT inhibition thresholds corresponding to measured GT pain pressure thresholds, by means of a processor [[(10)]] and subsequently determining and displaying by means of a display [[(6, 7)]] the GT inhibition pressure threshold.

14. (Currently Amended) A method of diagnosis and treatment according to Claim 10 wherein the method ~~farther~~ further comprises calibrating the component used for measuring pressure in the GT stimulator device, to suit a range of pressure values to cover for various stimulation and inhibition thresholds.

15. (Cancelled)

16. (Currently Amended) A method of diagnosis and treatment according to Claim 9 wherein determining the GT pain pressure threshold comprises use of an electric switch [[(3)]] triggered by the patient upon feeling the pain associated with the pressure applied on the damaged muscle.